UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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Mr. E. Claiborne Barnwell, PE
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SUBJ: EPA Comments on the Draft Environmental Impact Statement (DEIS) for the Extension of SR 601 from I-10/ Canal Interchange to Wiggins Harrison and Stone Counties, Mississippi
STP-0083-01 (001)/104159-001000
CEQ #: 20080435; ERP #: FHW-E40823-MS

Dear Mr. Barnwell:

Thank you for your interagency coordination efforts on the proposed project. The U.S. Environmental Protection Agency (EPA) participated in interagency meetings on August 13-14, 2008 and March 14, 2006 and provided detailed scoping comments dated April 11, 2006 regarding the proposed DEIS project. Consistent with our responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA), EPA Region 4 has evaluated the consequences of upgrading and extending State Route 601(SR 601) for approximately 34 miles to a full control of access roadway. As proposed, SR 601 will primarily parallel existing US 49 Highway from I-10 in Gulfport, Mississippi to SR 26 in Wiggins.

In addition to SR 601, the DEIS evaluates modifications to both SR 53 (1.4-mile widening from 2 to 4-lanes) and SR 26 (1.6-mile widening from 2 to 4 lanes). These changes are intended to improve safety, increase vehicular and freight traffic mobility, provide capacity for projected increases in travel volume and enhance capacity for hurricane evacuation routes.

Several alternatives are examined in the DEIS including a no-build, transportation system management and various alternative alignments within Segments 1, 2, 3, and 4. These alternatives converge into two basic alignments – Eastern and Western. The DEIS identifies the Eastern Alternative as the Preferred Alternative. This alternative uses more of the existing travel corridor than the Western alternative.

While the Preferred Alternative primarily has fewer natural environmental impacts than the Western alternative, they are still substantive. Impacts include 216 acres of wetlands, 4.16 miles of the 100-year floodplains crossed, 28 streams crossed, 89 acres of national forest crossed, 527 acres of prime and unique farmland, and 9 hazardous sites.

The proposed project will also result in the relocation of 142 residences, 85 businesses, as well as a church, medical facility, school, and institution.

There are also several waterbodies within the project area including the Little Biloxi, Biloxi River, Red Creek, Bernard Bayou and Flat Branch. Two of these waterbodies that will be crossed by the Eastern Alternative are included on the State of Mississippi 303(d) list for impaired waterbodies. The DEIS states that "MDOT proposes to proactively design and deploy sediment control measures to contain all sediments within construction boundaries." It also proposes bridging several large waterbodies along the Eastern Alternative. EPA encourages MDOT to incorporate these recommendations and others proposed within our detailed comments enclosure into MDOT's Commitments to Environmental Excellence Section. In addition, the use of additional bridges, culverts, and alternative roadway designs should be considered in the FEIS (See Attachment A).

In summary, the Eastern Alternative is collocated with more of the existing travel corridor so there are less secondary and cumulative impacts associated with environmental components than the Western Alternative. EPA supports the Eastern Alternative as a viable alternative for a final road alignment. However given the magnitude of the impacts that remain (i.e., aquatic resources), additional efforts should be made to further avoid, reduce, and mitigate the natural and societal impacts. Based on our review of the DEIS, EPA assigned a rating of "EC-2" to the document. That is, our review has identified a number of environmental concerns and some additional information is required.

We appreciate the opportunity to provide these comments and look forward to reviewing the FEIS for the proposed project. If you have any further questions or concerns, you may contact Ntale Kajumba at (404) 562-9620 or kajumba.ntale@epa.gov for NEPA issues and Duncan Powell of the Wetlands Regulatory Branch at (404) 562-9258 or powell.duncan@epa.gov for waters of the United States issues.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosure – Attachment A

Attachment A
EPA Detailed Comments on the DEIS for SR 601
Harrison and Stone Counties, MS
STP-0083-01 (001)/104159-001000

Aquatic Resources

Avoidance and Minimization: The FEIS should incorporate more avoidance and minimization measures for this proposed project. The DEIS and supporting Conceptual Engineering Map Atlas do not include roadway designs that would avoid waters of the United States. In addition, they do not include minimization steps relating to alternative designs. The DEIS states that "Roadway ROW will be held to minimum widths necessary without compromising roadway safety and design standards" (page 4-32). This sentence eliminates any discussion relating to alternative design flexibility and design flexibility is not demonstrated in either document.

Other than for major waterbodies, the DEIS and Map Atlas do not include bridging of waters of the United States as an avoidance measure. Furthermore, there is no discussion related to the rationale for not considering bridging certain types of waters of the United States (i.e., tributaries/smaller waterbodies). The minimization phase does not incorporate any discussion or consideration of safety designs that include Jersey barriers and guard rails engineered to increase safety when the area between opposite roadways are reduced or the side slopes of the causeway are vertical or steep. These safety measures would minimize impacts where waters of the United States could not be avoided. These safety designs are found in association with reduced footprints of a roadway when the roads or the recovery zones are narrowed.

Recommendation: The FEIS should indicate which avoidance and minimization measures were considered and eliminated, and also include the rationale for these actions. Narrowing of the typical roadway should be the considered when crossing waters of the United States. Another measure that should be considered when there are permanent impacts projected in waters of the United States should be the use or expansion of bridges, reduction of causeways, and widening of riparian corridors. All three of these designs have engineered safety designs and should be used when the roadway is to cross waters of the United States and state, federal parks, preserves, forests, or wildlife management areas.

Floodplains: The DEIS discussion about floodplains, including Section 3.12 primarily focuses on engineered culvert and bridge designs associated with designed rain events. The basis of the discussion focuses on "no increases in upstream flood elevations. The Federal Emergency Management Agency No Rise (FEMA No Rise) certification that is used to demonstrate compliance with the federal regulations is adequate to address the flood carrying capability of the floodway. The regulated floodway is the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. It is our understanding that the end product of protection

is elevation of the flood waters as they move downstream from above the activity. The No Rise certification does not deal with the area displaced by causeway fill that may impact downstream due to loss of the regulated floodway volume. We have concerns that the discussion is limited to a FEMA No-Rise certificate that determines if the proposed project may inhibit flow from upstream and cause issues.

The FEMA regulations relating to regulated floodways want these areas to include (excerpted):

- Preservation of the flood-prone areas for open space purposes (44 CFR §60.22(b)(1),
- Acquisition of land or land development rights for public purposes consistent with a policy of minimization of future property losses (44 CFR §60.22(b)(3); and
- Requirement of pilings or columns rather than fill, for the elevation of structures within flood-prone areas, in order to maintain the storage capacity of the flood plain and to minimize the potential for negative impacts to sensitive ecological areas (44 CFR §60.22(b)(17).

These FEMA regulations also state that:

The NFIP floodway standard in 44CFR 60.3(d) restricts new development from obstructing the flow of water and increasing flood heights. However, this provision does not address the need to maintain flood storage. Especially in flat areas, the floodplain provides a valuable function by storing floodwaters. When fill or buildings are placed in the flood fringe, the flood storage areas are lost and flood heights will go up because there is less room for the floodwaters. This is particularly important in smaller watersheds which respond sooner to changes in the topography.

The purpose of this discussion is to ensure that the avoidance and minimization that is required under the Clean Water Act (CWA) section 404(b)(1) regulations are consistent with the regulatory policy and implementation for the floodways under FEMA's responsibilities.

Recommendations: EPA suggests that the FEIS include additional discussion regarding the loss of flood storage by the new roadway's displacement of flood storage volume within the 100-year floodplain. Based on information in the DEIS, it appears that the Eastern Alignment would have much fewer impacts to flood storage than the Western Alignment because of the smaller volume associated with expansion of an existing roadway compared the construction of a new roadway.

An approach that may be used to address flood storage issues is to require compensatory storage to offset any loss of flood storage capacity. EPA's Water Protection Division notes that some communities adopt more restrictive standards that regulate the amount of fill or buildings that can displace floodwater in the flood fringe. Community Rating System credits are available for communities that adopt compensatory storage requirements.

The FEIS should be enhanced to include these considerations. It may be important to note that the cost of initial design and construction of bridging over the life of the project may be relatively small compared to project use, repairs after major rain events where the watersheds will have more impervious surface over time, potential loss of life, potentially more extreme rain events due to climate change, and the fact that all the hydraulic energies will focused upon these narrowed areas in the drainage way. An example is I-10 after Hurricane Katrina where the bridges maintained their use and the culverts were clogged, washed out, and had significant erosion adjacent and downstream of the impervious areas within the causeways.

Mitigation: The DEIS has a good format that evaluates alternatives for the roadway, Western and Eastern corridors. However, the avoidance measures are not addressed in detail. In addition, the DEIS does not include many specific commitments related to avoiding impacts to waters of the US (i.e., bridging waters of the United States). There is also no discussion regarding consideration of roadway width reduction, increased slopes, or vertical walls with rationale why these were or were not incorporated into the engineering designs. Minimization measures and commitments need to be incorporated in the FEIS.

In comparison, the compensatory mitigation discussion for typical roadway conceptual engineering design contained substantially more information, detailed discussion, and focus than the avoidance and minimization discussions. The lack of a sequential discussion of the same magnitude or effort given compensatory mitigation suggests that the proposed in-kind purchase of mitigation credits from a wetlands mitigation bank is all that is needed.

Recommendation: Following avoidance and minimization, the DEIS should also consider mitigation. EPA recommends that the FEIS be modified, in section 4.11.2 Wetland Mitigation, to include the April 10, 2008, "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (40 CFR Part 230)." This would provide the framework whereby a federal action agency could use to identify and address the minimum required sequencing components. The use of mitigation banks is appropriate in the sequencing as identified in both the 1990 Memorandum of Agreement Between the Department of Army and the EPA Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) and the new clarifying regulations adopted by these two agencies.

Mitigation bank instruments require approval by all agencies that are part of the part of the team. The DEIS currently implies that this is a completed activity and no other options have been considered or will be considered. An appropriate use of a bank by the team includes the analysis of two previous steps of avoidance and minimization; the type of impacts and the bank's specific specialization; the bank's service area; and potential impact to credits available in the bank. The FEIS should improve the discussion so that the final decision complies with the letter and intent of the NEPA and CWA section 404(b)(1) regulations.

Wildlife and Habitat Fragmentation

Wildlife crossings are a part of the controlled highway program, and are usually associated with drainage features and their riparian edges. The DEIS discussion on Section 4.15.2 Wildlife and Aquatic Resources does not include specific language, discussion, and identification of wildlife crossings in state and federal lands including U.S. Forest Service lands. However, we note that it includes a good discussion regarding habitat fragmentation, that supports the selection of the Eastern alignment verses the Western alignment.

Recommendations: EPA recommends that the "Wildlife and Aquatic Resource" section identify specific locations of wildlife crossings at all drainage features with specified widths, riparian corridors on both sides of the drainage features. The Conceptual Engineering Map Atlas should have specific designs for bridges at these locations that would span the drainage feature and the riparian corridors. This would not only mitigate for the expansion of impacts along the roadway corridor, but it could also mitigate for impacts related to the construction of the original US Hwy 49. Expanding the width of the wildlife corridor along with replacing culverts with bridges should be given full compensatory mitigation credit because of the environmental improvements that are directly created by the restoration of the topography and any waters of the United States and indirectly created from water quality benefits associated with riparian buffers.

There is concern that the entire desire expressed with the identification of the wildlife corridors has been eliminated with a very wide, non-committal statement that "to incorporate wildlife corridors and wildlife crossings where feasible." The word "feasible" should be better described in the FEIS. The engineering capabilities already exist and there are bridge designs with appropriate safety considerations; therefore, they are feasible from a design perspective. For example, there are wildlife crossings built to accommodate large mammals along I-75 in Alligator Alley, south Florida, and the Federal Highways Department has a series of other large mammal crossings for deer, moose, and elk in the mid-west and upper mid-west. Smaller mammal crossings have also been designed throughout the Southeast for controlled highways placed in or adjacent to other state and federal properties; therefore, special wildlife crossing designs are already in place with special designs considerations. We are concerned that the term "where feasible" may end up being a factor limited by the cost of the feature. Please consider that the overall price of this proposed roadway should be considered with the cost of the crossings spread over the entire roadway. This would put the road's cost in perspective to the cost of its secondary impacts.

Additionally, any economic consideration should also include the beneficial cost of maintaining the nation's natural resources. There are several ways of incorporating the value of fish and wildlife in economic considerations. These include the value of land purchase and restoration per acre put back into wildlife productivity, the value brought to the local economy per acre for renewable resource utilization from a recreational basis including the sale of licenses and multiplier effect of ecotourism at the county level.

Environmental Justice (EJ)

EPA appreciates the EJ analysis and in particular the demographic analysis that included the identification of areas where there a higher level of minority or low-income populations exists. This type of information better enables MDOT and FHWA to focus their public involvement, avoidance and minimization efforts related to low-income and minority populations in those specific areas. EPA also noted that the public

Recommendation: EPA recommends that MDOT and FHWA continue to ensure that there is adequate representation during the public involvement process from potential EJ communities within those targeted areas. Efforts to minimize impacts in these areas and to address community concerns should be summarized in Appendix C similar to the summary of public comments received via e-mail that listed the concerns and actions taken.

Endangered Species

Section 3.1503 of the DEIS states that the Bald Eagle is a threatened species. On August 8, 2007, the bald eagle was removed from the endangered and threatened species category and placed in a 5-year monitoring category.

Recommendation: The FEIS discussion related to federal endangered species of special concern should be updated to reflect changes in species status.

Miscellaneous Comments

Summary Table and Noise - Table 4.25-1 that summarizes the projects estimated impacts should be added to the project summary section in the front of the FEIS. In addition, it should include information regarding the number of potential noise sites along each alternative.

Maps - The Map Legends on Figures 3.8-1A through 3.8-1D appear to have reversed the identification of the Western and Eastern Alternative Segments. EPA appreciates the overall inclusion and usefulness of the maps within the DEIS. They are clear and useful for identifying potential environmental constraints and potential low-income and minority populations.

SR 601 Connector - The information about the SR 601 connector road south of Interstate 10 to the Port of Gulfport (Page 3-1) needs to be updated in the FEIS to include current information.